

**CLAIMS:**

1. A method for inhibiting or reducing a pro-inflammatory response in a diseased cell of the respiratory tract comprising contacting a diseased cell of the respiratory tract with an effective amount of an agent that increases ceramide levels in the cell thereby inhibiting or reducing a pro-inflammatory response in the cell.
2. A method for preventing acute respiratory inflammation in a subject comprising administering to a subject at risk of having acute respiratory inflammation an effective amount of an agent which increases ceramide levels in cells of the respiratory tract thereby preventing acute respiratory inflammation in the subject.
3. A method for inducing an inflammatory response in a cell comprising contacting a cell with an effective amount of an agent that increases the levels of ceramide in the cell thereby inducing an inflammatory response in the cell.
4. A method for decreasing proliferation of a diseased cell of the respiratory tract comprising contacting a diseased cell of the respiratory tract with an effective amount of an agent that increases the levels of ceramide in the cell thereby decreasing proliferation of the diseased cell of the respiratory tract.
5. A method for preventing or reducing a respiratory tract infection in a subject comprising administering to a subject at risk of acquiring a respiratory tract infection an effective amount of an agent which increases ceramide levels

in cells of the respiratory tract thereby preventing or reducing a respiratory tract infection in the subject.